

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P556965

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-93-86-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P556965
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-2HI-30-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

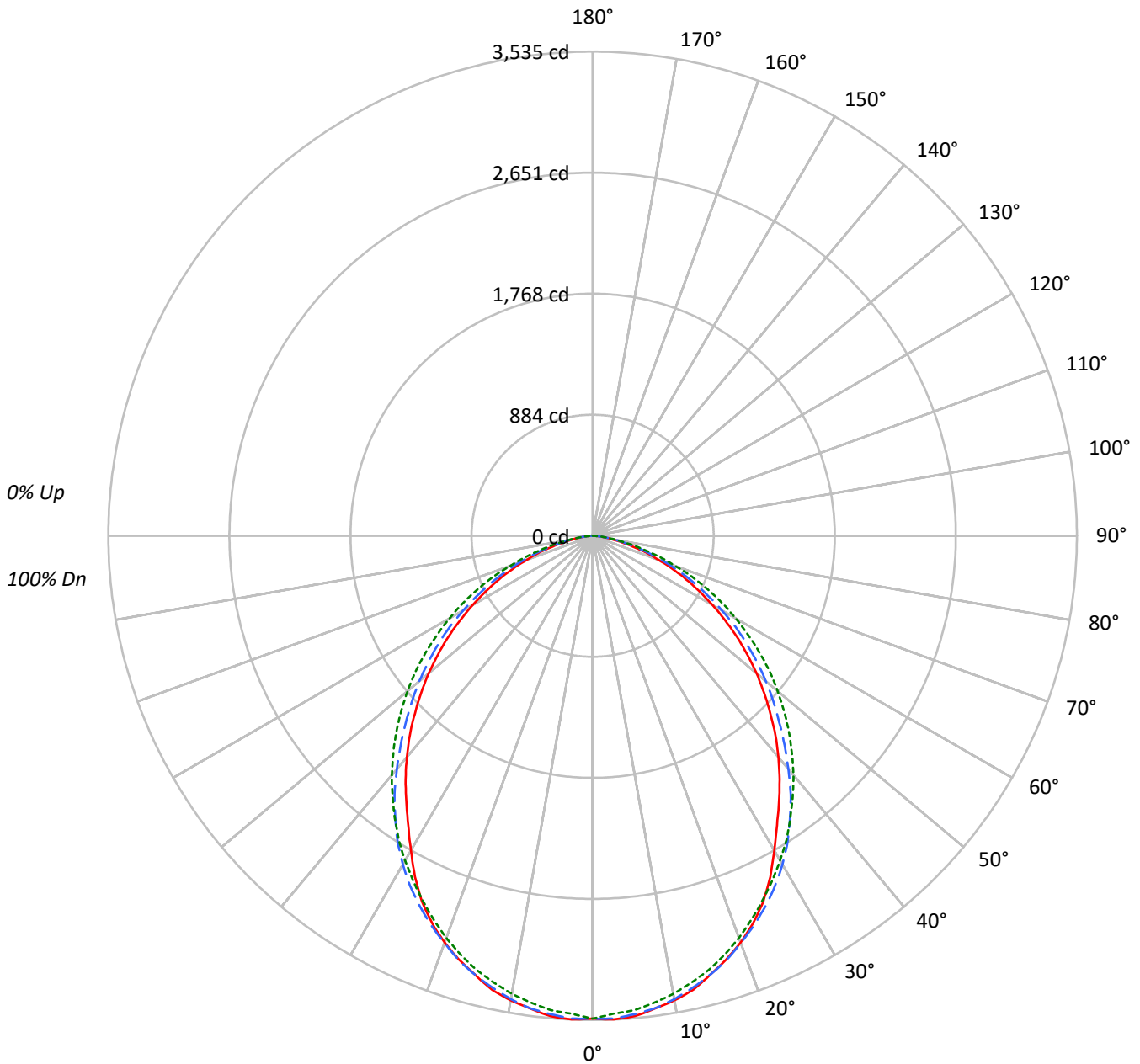
Lumens per Lamp: N/A
Luminaire Lumens: 8152.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9487	9487	9487
5°	9512	9472	9392
10°	9412	9386	9278
15°	9244	9244	9139
20°	9049	9060	8944
25°	8751	8859	8719
30°	8240	8611	8506
35°	7786	8253	8267
40°	7408	7808	8012
45°	6984	7335	7711
50°	6538	6912	7382
55°	6030	6431	6983
60°	5430	5868	6495
65°	4795	5217	5908
70°	3996	4444	5019
75°	3140	3549	3929
80°	2245	2498	2771
85°	1463	1463	1380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.9	4.1
10°-20°	932.5	11.4
20°-30°	1362.7	16.7
30°-40°	1546.8	19.0
40°-50°	1493.2	18.3
50°-60°	1231.8	15.1
60°-70°	820.3	10.1
70°-80°	367.1	4.5
80°-90°	65.7	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2627.2	32.2
0°-40°	4174.0	51.2
0°-60°	6899.0	84.6
0°-90°	8152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8152.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3526	3526	3526	3526	3526	
5°	3522	3520	3507	3488	3477	333
15°	3318	3326	3318	3303	3280	935
25°	2947	2970	2984	2962	2936	1350
35°	2370	2403	2512	2526	2516	1485
45°	1835	1866	1927	2015	2026	1416
55°	1285	1307	1371	1446	1488	1147
65°	753	773	819	878	928	747
75°	302	318	341	358	378	330
85°	47	47	47	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3525.5	3525.5	3525.5	3525.5	3525.5
2.5°	3535.0	3536.4	3528.2	3506.6	3493.0
5°	3521.5	3520.1	3506.6	3487.6	3476.8
7.5°	3482.2	3484.9	3480.8	3453.7	3438.8
10°	3444.3	3445.6	3434.8	3413.1	3395.5
12.5°	3395.5	3394.2	3379.3	3368.4	3340.0
15°	3318.3	3326.4	3318.3	3303.4	3280.4
17.5°	3243.8	3243.8	3249.2	3223.5	3205.9
20°	3159.8	3163.9	3163.9	3143.6	3123.3
22.5°	3062.3	3074.5	3078.6	3056.9	3032.5
25°	2947.2	2970.2	2983.8	2962.1	2936.4
27.5°	2807.7	2842.9	2883.5	2867.3	2838.8
30°	2651.9	2703.4	2771.1	2757.6	2737.3
32.5°	2504.3	2555.8	2649.2	2643.8	2633.0
35°	2370.2	2402.7	2512.4	2526.0	2516.5
37.5°	2242.9	2272.7	2375.6	2406.8	2398.7
40°	2108.8	2141.3	2222.6	2278.1	2280.8
42.5°	1976.1	2007.2	2073.6	2153.5	2153.5
45°	1835.2	1866.4	1927.3	2015.4	2026.2
47.5°	1697.1	1729.6	1789.2	1877.2	1894.8
50°	1561.6	1591.4	1651.0	1736.4	1763.4
52.5°	1420.8	1453.3	1511.5	1590.1	1629.4
55°	1285.3	1307.0	1370.7	1446.5	1488.5
57.5°	1144.5	1164.8	1236.6	1301.6	1344.9
60°	1009.0	1034.8	1090.3	1156.7	1206.8
62.5°	879.0	906.1	953.5	1011.7	1068.6
65°	753.1	773.4	819.4	877.7	927.8
67.5°	631.2	648.8	694.8	735.4	788.3
70°	507.9	530.9	564.8	604.1	637.9
72.5°	409.0	418.5	447.0	475.4	510.6
75°	302.0	318.3	341.3	357.6	377.9
77.5°	216.7	226.2	239.7	253.3	272.2
80°	144.9	149.0	161.2	163.9	178.8
82.5°	88.0	90.7	93.5	94.8	100.2
85°	47.4	47.4	47.4	44.7	44.7
87.5°	27.1	27.1	23.0	19.0	13.5
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)